

Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 November 5,1976

## Discussion of Test Results

The average fiber length of short staple cotton tested from the Southwest through October 29 is shorter and less uniform than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. The average fiber strength is weaker on both zero and 1/8" gage tests. Picker and card waste is higher than a year ago. Yarns spun from these samples show considerably weaker yarn strength and lower appearance grades. Yarn imperfections are higher. The average spinning potential yarn number is lower.

The U. S. average length of medium staple samples is slightly shorter than a year ago at this time. Micronaire and fiber strength are about the same as a year ago. Picker and card waste is higher than last year. Yarns spun from these samples are stronger with higher appearance grades and fewer imperfections.

Southeastern area medium staple samples are slightly longer, more uniform, and coarser than a year ago. Cottons are stronger. Shirley Analyzer nonlint content is slightly higher. Picker and card waste is considerably higher than last season. Yarns spun from these samples show stronger skein strength and higher appearance grades. Yarn imperfections are fewer. The average spinning potential yarn number is higher.

Medium staple samples tested from the South Central area show fibers to be slightly shorter and less uniform than a year ago. Cottons are finer and stronger. Picker and card waste is higher than last year. Yarns spun from these samples show stronger yarn strength and fewer imperfections.

Medium staple samples tested from the Southwest show slightly shorter fibers than a year ago. Picker and card waste is considerably higher. Yarns spun from these samples are slightly stronger with fewer imperfections.

Medium staple samples tested from the West to date show longer, slightly less uniform fibers than a year ago. Samples are weaker at zero gage strength tests. Both Shirley Analyzer nonlint content and picker and card waste are higher than a year ago. Yarns spun from these samples show higher appearance grades and fewer imperfections. The average spinning potential yarn number is higher.

These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season. These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

<sup>1/</sup> Summary of Cotton Fiber and Processing Test Results, Crop of 1975, USDA, AMS, Cotton Division, May 1976.

Averages of fiber and processing tests from selected gin points in the United States through October 29, 1976

Table i.--Cotton:

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Lots   Fibrograph   Hike   Fiber strength   S.   P.   P.   S.   P.   P.   S.   P.   P	Significant dif- ference 2/
Fiber test results   Fiber strength   S A   P & C   Skein   Agara Imparations   Fiber strength   S A   P & C   Skein   Appear—Imparations   Fiber strength   Fiber strength   S A   P & C   Skein   Appear—Imparations   Fiber strength   Fiber st	
Piper test results   Piper strength   Piper   P	0.02
test         Processing test results           time         Fiber strength         S A         P & C Skein         Yearn quality           times         gage         gage         gage         Ret.         Pet.         Skein         Appear-Imperf- Bctions           times         gage         gage         gage         Str.         Ance stions           times         Most         Pet.         Pet.         Index         No.           times         Sg         22         3.0         5.7         10th         116         11         13           times         Sg         22         3.0         5.7         10th         10f         22           times         24         3.6         6.7         112         10f         10f         22           times         24         3.6         6.7         112         10f         10f         22           times         24         3.6         6.7         112         10f         10f         22           time         25         26         27         112         10f         10f         22           time         25         28         2.2         4.7         10g <td>ત્ય</td>	ત્ય
strength gage         s A P & C Skein nonling waste gage         Yarn quality ance ections str.         Pace ections str.         Pace carded Yarn nonling waste str.         Appear maper ections str.         No.           22         3.0         5.7         104         116         11           22         3.4         5.5         100         25         23           24         3.6         6.7         112         105         22           24         2.9         5.7         112         100         25           25         3.0         5.1         101         105         23           24         2.9         4.7         103         99         22           25         2.9         4.7         105         99         20           28         2.0         4.1         105         99         20           28         2.0         4.1         105         99         20           28         2.0         4.1         105         90         20           23         2.0         4.2         109         90         20           23         2.0         4.1         105         90         20           23	0.2
S A   P & C   Skein   Appear Imperf	2
P& C Skein Appear-Imperf- vaste str.           Varn quality           P& C Skein Str.         Appear-Imperf- ance betions           Pet.         Ibs.         Index In	1
P& C Skein Appear-Imperf- vaste str.           Varn quality           P& C Skein Str.         Appear-Imperf- ance betions           Pet.         Ibs.         Index In	0.5
	0.5
	4 (22s)
	5 (
	2
- 3 -	3

Based on a limited number of samples of modal quality . Minimum differences considered to be significant for comparisons in this table. كايا

Averages of fiber and processing tests from selected gin points in the United States through October 29, 1976 1976 Lontinued)

Table 1.--Cotton:

	SPY	No.	71 76		m
	comp	No.	80		8
	Imprfctns	No.	14 21		N
1 + 3	rn Quality Appearance	Lbs. Indx Indx I Carded & Combed Yarn	120 1 <b>2</b> 5		5
Processing Test Results	Yarn Quality Appearand	Indx	120 105		2
antssan	Ya gth combed	Lbs.	1 <b>2</b> 5 146		4(22s) 2(50s)
Pro	Ye Strength carded combed	Lbs. I	106		4(22s)
	Comber Waste	Pct.	15.5		0.5
	P&C Waste	Pct.	7.7		0.5
	SA Non- lint	Pct.	<b>a</b> 8		0.5
v.	ngth 1/8" gage	G/tx	54 50 50		
Regults	Strength Zero 1/8" Rage Rage		83		α
r	ו או	Rdg.	†** †**		0.2
Fiher Test	ch Unif	Pet.	45		a
	Length Span U	In.	1.15		0.02
	Lots	No.	٦ N	 	
	Staple group, Area, and Crop year		Long Staple: Southeast 1975 1976		Significant Difference 2/

Based on a limited number of samples of modal quality
Minimum differences considered to be significant for comparisons in this table. ন্যতা

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1976

	Spin. Poten-	tial	No				-	33	11	<b>\$</b>
			의 의				5	2 3	4	
rns	Imprfect'ns	s or 22	No				1	20 . 1	1 /	22 17
ded Yar	ce	2sor 8 7 tx 7	No					120 . 2	00	110 2
Processing Test Results - Carded Yarns	Appearance Index	8s or 22sor 8s or 22sor 74 tx 27 tx 74 tx 27 tx	No					130		130 1
Result	Y C		ľ					_		
g Test	Elongation ;	8s or 22s or 8s or 22s or 74 tx 27 tx	Pct Pct					5.1	4.8	. 5.9
cessin		or 8s tx 74				TIM O	5.7	6.3	5.9	ICENT 7.2.
Pro	Strength	8s or 22s or 74 tx 27 tx	sqT. ?			TA DODG NO	80		. 78	100 PERCENT 297 . 97 . 7.
			Trps		_		255	262	264	297
	74. P &	Waste	Pet				1.9	6-9	6.3	6.8
	Color Raw Stock P & C	Gra Yel	잉				4	4	4	4
	S.A. R.		Pct No		٠		3	3	5 3	80
	n-S.						2	m	2•(	'1 3•8
ults	Elon- gat'n	1/8"	. Pct			ů	5.8	5.9	5.8	LX571 6.4
Test Results	Fiber Strength	1/8" Gage	G/tex.			144 404	LAINAAKI 21	20	21	LANKART LX571 21, 6.4
Fiber	Stre	Zero	Mpsi				89	8 7	8.7	82
	Mike		Rdg				8 4	4.6	4.6	3.8
	Digital Fibrograph'	Unif	Pct				147	45	77	£4
	Dig Fibro	2.5% span	티				0.95	0.93	16.0	1.08
		Stplc	328	AREA			32	31,	31	52 1/33 1.08
Area	mber	ode		⋖				42		
Production Area,	& Sample Number	No Grade Name & Code		SOUTHWEST	270	CENTRAL TEXAS	SIM IT SP	SLM.LT SP	3 SLH LT SP	WACO 1 LP LT SP

1 Reduced from 42 because of bark

- 6 -

Table 3 .- Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976

								<b>-</b> 6	-							
	Spin.	tial	<u></u>		58	70	62	4		59	10	61	52	57	4	
	Imprfect'ns	50s or 12 tx	8		19	21	11	20		19	15	15	20	۰	1	
arns	Imprfe	22s or 50s o 27 tx 12 ty	<u></u> 8		56	27	15	24		25	18	50	25	12	13	
Carded Yarns		o x	외		70	90	90	80		70	70	80	02	90	90	
1	Appearance Index	o ×	외		100	100	120	100		96	06	90	06	120	100	
t Resul	ion	or X	Bet		4.2	4.6	4.1	3.5		4.4	5.3	5.1	3.8	4.5	4.0	
Processing Test Results	Elongation	o x	- Ret	-	:NT 5.5		5.6	int 5.2		ENT 6.0	6.6	ENT 6.3	:NT 5.5	NT 0.0	5.3	
rocess	gth	50s or 2			PERCENT 36 5.	PERCENT	PERCENT 38 5.6	PERCENT 31 5.2		PERCENT	PERCE 41	PERCENT	PERCENT 31 5.	PERCENT 35 6.0	PERCENT 35 5.3	
	Strength	22s or 50s or 27 tx 12 tx	ros S		99	100	100 6	100		100	100 PERCENT	1100	100	107	100 1	
	P & C	Waste	Pet		7.5	9 9	6.5	1.9		5.5	5.0	5.8	0.9	8 •	6.2	
	Color Raw Stock	Yel	<u>શ</u>		8	2	4	m		~	7	м	m	e	~	
	Co	Gra	읽		e	8	4	2		7	-	2	-	74	-	
	S.A.	Non- Lint	Pet		4.4	0••	3.9	2.1		2.9	2.1	2.8	2.3	2.0	31N 3.6	
t.s	Elon-	gat n 1/8"	Pet		201	612 5.9	417	201 5.5		LLE 213 6.3	NE 16 7.7	LLE 21 6.6	LLE 21 5.6	NE 16	. LLE 72	
st Results	er gth	1/8" Gage	G/tex		COKER 2 23	HCNAIR 26	COKER 4 25	COKER 2		STCNEVILLE 24 6+3	DELTAPINE 26 7	STCNE VILLE 24 6.6	STONEVILLE 23 5.6	DELTAPINE 24 7.	STCNEVILLE 731N 24 5.5 3	
Fiber Tes	Fiber Strength	Zero Gage	Mpsi		83	68	68	89		88	81	87	. 89	98	92	
£4		Mike	Rdg		4.8	4.7	9•4	5.0		4.5	4.1	4.1	6.4		4:1	
	al raph	Unif.	Pct		45	41	45	2,5		94	4	45	4	2	4	
	Digital Fibrograph	2.5% span	티		1.08	1.17	1.05	1.08		1.11	1.15	1.13	1.07	1.10	1.38	
		Stple	32s	AREA	34	36	34	34	AREA	35	36	36	34	34	34	
ea,	E 1			AR	51	41	45	31	A	41	41	41	NCE 41	7	<b>√113</b>	
Production Area,	Classification & Sample Number	Srade Name & Code		SCUTHEAST	GEORGIA ALLENTOWN 1 LP	NORTH CAROLINA LAURINBURG 1 SLM	SOUTH CAROLINA CHESTER 1 SLM LT SP	MAYESVILLE PIO	SOUTH CENTRAL	ARKANSAS HUGHES I SLM	KEISER 1 SLM	LEACHVILLE 1 SLM	LOUISIANA LAKE PROVIDENCE I SLM 41	PISSISSIPPI DUCK HILL I SLM	GLENDORA 1 LM	
		윭	1	SC	GE A	N T	SC	-	S	A	7	-	<b>5</b> -	2		

1/ Reduced from 41 because of grass

**→** 7 **-**

Table 3 -- Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976-- (Continued)

	Spin. Poten- tial	S	63	52	58	54	12	62		45		7.	11	
	Imprfectins 2s or 50s or	No or	18	10	10	12	٥	17		16		61	11	
arns	lmprfe	2 2 3	92	15	14	17	11	<b>%</b>		54		22	. 21	
- Carded Yarns	or	7	70	70	06	80	06	080		20		70	80	
lts - Ca	Appearance Index 22s or 50s	]     01	06	110	110	100	110	.06		100		06	9.0	
st Resu	ال ا	5	<b>6.</b> 5	3.8	4.3	<b>.</b>	1:	*				f.1	4.1	
Processing Test Results	Elongation or 22s or 50s	레시	PERCENT 37 6.2	PERCENT 35 5.2	PERCENT 37 5.7	PERCENT 32 6.0	PERCENT 41 6.4	PERCENT 39 6.5	;	PERCENT 32 6-1		PERCENT 44 5.7	PERCENT 48 5.6	
Proc	Strength 22s or 50s or	1	10 PE	35 35	100 PEF	85 PE	0 P.E.	39 66		90 PE		99 PE	98 PE	
	<del></del>		100	100 1	114	105	121	119		101		9	133	
	P & C Waste	Pet	5.8	<u>√2</u> 6.9	6.7	5.7	4.1	5.2		6.1		5.5	. 8	
	Color Raw Stock Gra Yel	윌	8	7	9	2	7	m		е е		6	7	
	Raw Gra	21	-	3	7	-	-	~		~		-	7	
	S.A. Non- Lint	Pet	3.4	I 4.2	3.7	3.5	2-0	2.8		3.5		3.3	2.4	
lts	Elon- gat'n 1/8"	Pet	NE 16	K ING II 5.1	11LE 213	11LE 213 6.0	NE 61 7.4	¥ 9		STCNEVILLE 213		5.1-2	SJ-2 6.3	
Test Results	Fiber rength ro 1/8"	4	DELTAPINE 25 7	OIXIE K 24	STCNEVILLE 25 6.0	STONEVILLE 23 6.0	DELTAPINE 61 26 7.4	AUBURN 24		STCNEVI 22		ACALA S	ACALA S	
Fiber Te	Fib Stren Zero	Mosi	. 89	98	93	18	16	86		81		88	93	
	Mike	Rdg	3.5	4.0	4.3	4.3	4.4	3.8		4.		0.4	4.2	
	al graph Unif.	Pet	45	45	1.4	45	45	;		<b>9</b>		45	45	
,	Digital Fibrograph 2.5% Unif	In (panu)	1.09	1.03	1.04	1.07	1.13	1.10		1.10		1.13	1.14	
	Stple	32s (Cont.)	34	33	34	34	34	35	AREA	3.	AREA	36	36	
Area,	ber	ŒA	ontim <b>41</b>	51	50	7	1,	#	₹	. 2	¥	3	1,	
Production Area, Classification	Sample Number No Grade	SOUTH CENTRAL AREA(Continued)	MISSISSIPPI(Continued) HOLLANDALE 1 SLM 41 34	INDIANOLA I LM	INDIANDLA I LM PLUS	NATCHEZ 1 SLM	SCOTT 1 SLM	MISSOURI SENATH I ŞLM	SOUTHWEST	CENTRAL TEXAS BATESVILLE 3 SLM LT SP	WEST	CALIFORNIA BAKERSFIELO I SLM	BAKERSFIELD 1 SLM	

2, Cotton stuck to provessing rells

	'ns Spin. Poten-		No No
arns	Imprfect'ns	22s or 50 27 tx 1	N
Processing Test Results - Carded Yarns	Appearance Index	Comber 22s or 50s or 22s or 50s or 22s or 50s or 22s or 50s or $\frac{50s}{2}$ or $\frac$	No
sults	Appe	r 22s c 27 to	No
Test Re	Elongation	r 50s og 12 tx	Pet
ssing	Elon	22s o 27 tx	Pet
Proce	gth	50s or 12 tx	sd.
	Color P&C Strength Raw Stock and	22s or 27 tx	Lbs
	P & C and	Comber Waste	Pct
	Stock	Gra Yel	No No
	CC	Gra	울]
	S.A.	Lint	닯
ts	Elon- S.A.	1/8"	Pet
est Results	Fiber Strength	1 2 9	G/tex
Fiber Test	F	Ze	Mpsi
		Mike	Rdg
	cal anh	Unif.	Pet
	Digital Fibrograph	<b>⊣</b>	urd s
		Stple	328
Production Area,	Sample Number	Grade Name & Code	Name of cours

Table  $\psi$  --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1976

AREA  INA  LOUKER 310  LOUPERCENT  LOUPERC		11	22
AREA  COKER 310  41 36 1-18 48 4-6 92 27 6-6 1-8 2 3 5-7 127 46 5-8 4-6 110 100  41 36 1-18 48 4-6 92 27 6-6 1-8 2 3 5-7 127 46 5-8 4-6 110 100  COKER 310  COKER 310		9 6	
AREA  COKER 310  41 36 1-18 48 4-6 92 27 6-6 1-8 2 3 5-7 127 46 5-8 4-6 110 100  41 36 1-18 48 4-6 92 27 6-6 1-8 2 3 5-7 127 46 5-8 4-6 110 100  COKER 310  COKER 310		4 9	28
AREA  LINA  LOCKER 310  LOCKER 310  LOCKER 310  LOCKER 310  LOCKER 310  COKER 310  COKER 310  LOCKER 3		100	00
AREA  LINA  LOOKER 310  LOOKER 310  LOOKER 310  LOOKER 310  LOOPERCENT  LOOPER			
AREA  INA  (COKER 310  41 36 1.18 48 4.6 92 27 6.6 1.8 2 3 5.7 127 46 5.8  41 36 1.18 48 4.6 92 27 6.6 1.8 2 3 5.7 127 46 5.8  INA  (COKER 310  COKER 310  COKER 310  COKER 310  COKER 310  COKER 310  100 PERCENT  100 PERCENT  110 46 4.3 90 26 6.6 2.8 1 3 5.9 125 44 5.9			
AREA  [NA  41 36 1.18 48 4.6 92 27 6.6 1.8 2 3 5.7  41 36 1.19 46 4.3 90 26 6.6 2.8 1 3 5.9  E 41 36 1.19 46 4.3 90 26 6.6 2.8 1 3 5.9		00 PERCENT 46 5.8 53 6.5	00 PERCENT 44 5.9 52 6.3
AREA  INA  41 36 1.18 48 4.6 92 27 6.6  TINA  41 36 1.19 46 4.3 90 26 6.6		127	
AREA  INA  41 36 1.18 48 4.6 92 27 6.6  TINA  41 36 1.19 46 4.3 90 26 6.6		3 5.7 * 13.6	3 5.9 * 15.3
AREA  INA  41 36 1.18 48 4.6 92 27 6.6  TINA  41 36 1.19 46 4.3 90 26 6.6		2	-
AREA INA 41 36 1.18 48 4.6 92 INA 6 41 36 1.19 46 4.3 90		1 • 8	2.8
AREA INA 41 36 1.18 48 4.6 92 INA 6 41 36 1.19 46 4.3 90		3.10 6.6	3.10
AREA INA 41 36 1.18 48 4.6 92 INA 6 41 36 1.19 46 4.3 90		COKER 27	COKER 26
AREA INA 41 36 1.18 48 4.6 INA E 41 36 1.19 46 4.3			
ž ž		9.	
ž ž		40	9
ž ž		1.18	1.19
ž ž	REA	36	36
S S I	SOUTHEAST	NORTH CAROLINA DUNN 1 SLM 41	SOUTH CAROLINA HARTSVILLE 1 SLM 41

\* Comber Waste and Combed Yarn Data